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ABSTRACT

This paper addresses developmental education programs as mechanisms for enhancing the survival rates of disadvantaged populations in higher education. Specifically, the paper identifies and discusses the critical dimensions of effective developmental education programs, including recruitment, admissions, diagnosis and prescription, orientation, special coursework, student financial aid, tutoring, counseling, and evaluation. The recommended guidelines will prove useful to education planners in mapping out the criteria for developing and improving programs designed to assist disadvantaged students not only in adjusting to the college environment, but also in persisting through graduate and postgraduate education. Recommendations for administration, staffing, facilities, and budget planning are included. A selected bibliography is appended. (Author/BE)

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GUIDELINES FOR THE DESIGN OF DEVELOPMENTAL EDUCATION PROGRAMS

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Part 4 of the Research Program on Problems
Relating to the Desegregation of Higher Education

A Report to the
National Institute of Education

INSTITUTE FOR SERVICES TO EDUCATION
Division of Research and Evaluation

January 15, 1979

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FOREWORD

This paper addresses developmental education programs as mechanisms for enhancing the survival rates of disadvantaged populations in higher education. Specifically, the paper identifies and discusses the critical dimensions of effective developmental education programs, including recruitment, admissions, diagnosis and prescription, orientation, special coursework, student financial aid, tutoring, counseling, and evaluation.

Most of the guidelines recommended were drawn from the direct experiences of Mr. Stephen Adolphus, the principal author of this paper, with numerous postsecondary programs for the disadvantaged funded by federal and state governments or institutions. The contributing authors were Dr. Mary Carter Williams, Dr. Herman Henning, and Mr. Samuel Baldwin.

The Division of Research and Evaluation, Institute for Services to Education, feels that this document will prove useful to education planners in mapping out the criteria for developing and improving programs designed to assist disadvantaged students not only in adjusting to the college environment, but also in persisting through graduate and postgraduate education.

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INTRODUCTION

Overview

Ultimately, developmental education programs aim to create a society in which all groups are represented equitably in the labor force--that is, in numbers roughly equal to their proportions in the population as a whole. This paper shall not address the broader issues, but rather the more immediate objective of creating programs which insure equity for all groups in society with regard to access to and successful exit from institution of higher education. The basic elements essential to the success of these programs include recruitment, admissions, diagnosis and prescription, orientation, special coursework, student financial aid, tutoring and evaluation. This paper also describes administrative, staffing, and cost considerations for such programs.

Background Statement

Developmental education programs are designed to facilitate both the smooth transition of minority students into the university culture and their continuation through graduation. As a result, they tend to address a combination of social, financial and academic needs. Green[1] discusses some of the needs of minority students which must be met if they are to be guaranteed a "solid opportunity for success". He recommends the following:

- The financial status of low-income minority students should be reassessed on a quarterly basis. If additional assistance is necessary, then it should be given in the form of grants rather than loans.
- Course content should be reorganized so that it has living relevance to the lives and futures of minority group students.
- Counselors must be sensitized to the needs and lifestyles of all minority students, thereby enhancing their ability to relate to and give positive support to this special group.

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[1]Green, R.L. and D.W. Farquhar, "Negro Academic Motivation and Scholastic Achievement," Journal of Educational Psychology, 1965, 56, pp. 241-243.

- Tutorial assistance should be departmentally-based. It is honed that such a system would allow for more faculty involvement in helping students to overcome their handicaps.

- Special funds should be appropriated for the planning and implementation of social and cultural programs which are relevant to the black experience. Such activities would serve to meet the special needs of black students as well as to foster communications and understanding between the dominant institutional culture and minority students.[2]

Henderson[3] supports the position that the issue of equality in education will not be resolved simply by integrating minority students into the present system of higher education. Without the necessary supports to sustain them, the problem will continue to exist. To validate his argument, Henderson relates the success of the Experiment in Higher Education (EHE) at Southern Illinois University and the principles on which the program is based. Three of the underlying principles of the EHE are explained below:

- One of the most important factors contributing to college success among disadvantaged youngsters is an adequate adjustment to the college environment. Among disadvantaged students, the period require for proper adjustment appears to be more extended than for other students, since they have to learn the practical benefits of college after they have enrolled.

- A rigid adherence to the realization of some standard of performance during early stages of the college careers of disadvantaged students serves to force them out before they have made an adequate adjustment. This is not to suggest a lowering of academic standards, but to advocate deferment in applying such standards until students have made a reasonable adjustment, and are provided capable and continuing assistance and support in bridging the gap between themselves and the university system.

- Disadvantaged students are often qualitatively different from those for whom the conventional educational program has been devised. What is needed, therefore, is an educational program that can capitalize on that different experience for educational purposes and, above all, one that does not attempt to force all students into the same educational mold.

Henderson suggests that the value of such an approach to the higher education of low-income, minority students can be gauged by the success of the program devised for them. During the 1966-67 academic year, 100 students were admitted

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[2] Ibid.

[3] Henderson, Ph.D Dissertation, University of Pittsburgh.

into the program, 74 of whom remained at the end of the 1967-68 academic year. On the basis of test scores and high school grade-point averages, it was predicted that the group would attain average grades of 2.2 (a very low D on SIU's five-point grading scale), with 24 students failing to achieve a 2.0 (D) average and one achieving a C (3.0) or better. However, of the 74 students remaining in the program, 65 achieved higher averages than were predicted. At the end of the first four quarters of EHE, 30 students were at or above C level, including 10 who averaged 3.5 or better and two who averaged 4.0 (B) or higher. Only five of the students achieved lower than a 2.0 average. SIU faculty and administrators were so impressed with the results of the experiment that the institution has considered complete funding of an expanded program.

Unlike many majority institutions, historically black colleges and universities do not operate under the assumption that all black students have disadvantaged backgrounds and, therefore, are in need of special services. Most would agree that the majority have disadvantaged backgrounds. They recognize a diversity and adjust their programs accordingly. Although they do offer some form of developmental programs, their distinctions between students are more refined in nature--a fact which is reflected in the services they provide.

Notably, Tuskegee Institute offers an extensive range of developmental programs for the benefit of its regular students. Included is Project Pride, a program which aims to assist low income and physically handicapped undergraduate students to make adjustment to the college environment. Counseling, tutorial services, and other resources are utilized to enhance student progress. In addition to Project Pride, Tuskegee provides a Summer Enrichment Program for early entrants from the eleventh grade as well as high school graduates who meet minimum admissions standards.

Likewise, North Carolina Central University (NCCU) conducts weekly freshman Seminars for groups of 30 students each. A counselor acts as facilitator for discussions covering a variety of topics, including student values and attitudes. NCCU also operates an Academic Skills Center that services students in need of special tutoring, as indicated through Scholastic Aptitude Test (SAT) scores. Such students usually carry a limited course load until thieir skills have been developed adequately to carry a full load.[4] (Goodrich, 1977) Fisk & Morehouse offer an early admissions program--Martin Luther King was a distinguished product of that program.

For more than a decade, the Institute for Services to Education, through its Thirteen Colleges Curriculum Program (TCCP), has assisted a selected number of historically black colleges to improve their teaching--learning environments during the freshman and sophomore years. The specific goals of this program are as follows:

- to produce a learning environment that takes advantage of the strengths and background of the student in the predominantly black college and thus results in: (a) lower attrition rates; and (b) intellectual achievement that will be at least equal to or possibly greater than that gained by students enrolled in traditional classes;
- to produce the kind of educational leadership that creates within the institution a climate of self-analysis and evaluation that will bring about meaningful change; and
- to develop attitudes in teachers such that curriculum change will be made and sustained.[5]

The results for the first generation of students who had been involved in the TCCP (1967-1968 and 1968-1969) indicate that the program has been very successful. For example:

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[4]Goodrich, Andres. "New Programs and Services for Higher Education's New Student," Journal of Afro-American Issues, 1977, 1, pp. 20-32.

[5]Johnson, Clifford, "Evolution of the Thirteen College Curriculum Program: A Brief Recapitulation," An MIS Approach to the Delivery of Educational Services to Socio-Economically Disadvantaged Students: A Planning Document, October 1977, p. 1.

- students entered their senior year in higher percentages (62.5%) than regular students (46.9%);
- students achieved higher grade-point averages than regular students;
- students scored higher than regular students on standardized verbal ability tests after completing freshman and sophomore years;
- students achieved more positive personality and self-concept development than regular students, as measured by standardized tests;
- students participated in more extra-curricular activities, such as government and community service, and held more class offices and other leadership positions than regular students;
- students, as compared to regular students, included fewer education majors and more who expressed interest in careers in medicine, law, the arts and the humanities.[6]

Egerton conducted a survey designed "to discover what some of the predominantly white, four-year colleges and universities were doing to make higher education available to low-income and minority group students who lacked the credentials--but not the qualities--to succeed in college." Following are some highlights or general observations resulting from the study:

- In spite of the federal government's sizable outlays of scholarship, loan and work-study funds for students, there is ample statistical evidence that rising costs and rising admissions standards make college progressively less accessible to the low-income student. Colleges appear likely to become more stratified along class lines, and possibly along race lines as well.
- No major foundation has entered the high risk field with the intent of discovering the limits of a college's capability to reach and teach disadvantaged students, and with the exception of a venture by the Office of Economic Opportunity (OEO), neither has the federal government. The Rockefeller Foundation has helped several colleges finance recruitment of minority-group and low-income students, but the emphasis has been on high achievers, not high risks. Some foundations are supporting college-preparatory programs, and there are also two federal programs aimed at leading large numbers of disadvantaged students up to the college doors. One is Upward Bound, OEO's college-prep program; the other, known as Contracts to Encourage Full Utilization of Educational Talent, is operated by the U.S. Office of Education.

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[6]Ibid.

- By and large, the people who direct the more noteworthy high risk programs are not academicians. Admissions officers, social workers, administrators and counselors are more in evidence than professors. In fact, it seems generally true that neither the academic disciplines nor individual faculty members have shown a high degree of interest in high-risk programs. There is fairly broad acceptance of the notion that public schools are a legitimate instrument of social change in this country, that part of their responsibility is to help improve opoortunities for minorities and the poor. That same idea seems not to be as generally felt or shared by higher education institutions.

- Most major universities, particularly the state-sponsored ones, have been flexible enough to make exceptions to their standards when it has been in their interest to do so, and they have done it with considerable success. However, interest in disadvantaged students who are below an institution's safety margin is in conflict with a welter of seemingly immutable hallmarks of most colleges. Admissions standards are on the rise; undergraduates diminish in importance as graduate programs and research schools with selective admissions policies take the best students--and keep them--while non-selective ones have high enrollments, high attrition, and increasingly less time for even the middle-class students who get off to a slow start. Many high risk students have neither the money, the prestige, the political pull nor the probability of success to make them attractive prospects for most colleges.[7]

As minority students gain access to majority institutions, the need exists to develop developmental education programs aimed at their retention. The review of literature suggests that such programs have varying levels of success, depending upon the types of services provided and the human resources involved.

BASIC ELEMENTS OF DEVELOPMENTAL EDUCATION PROGRAMS

Recruitment

Although recruitment and admissions are frequently coupled under a single heading, they in fact comprise two distinct processes. They are dealt with separately in this presentation because the processes of recruiting and admitting minority students present problems that do not usually occur in traditional recruitment and admissions efforts.

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[7] Egerton, John. Higher Education for "High Risk" Students (Atlanta, Georgia: Southern Education Foundation, April 1968).

Traditional admissions processes and methods of identifying minorities whose future would be enhanced by higher education too frequently result in low minority enrollment. In fact, recruiters for higher education institutions complain that, even with the best of intentions, they cannot locate or identify large pools of minority students for their institutions. Recruiters for this pool must recognize that disadvantaged college students generally have the following characterisitics:

- They are the first persons in their families to seek postsecondary education.
- They are students who have all too often internalized the negative perception of their abilities voiced by high school teachers and guidance counselors.
- They are economically disadvantaged
- They often perceive higher education, with some justification, as hostile to their interests and indifferent to their needs.

Recruiters, therefore, must do more than follow the normal procedures to overcome the reluctance of these students to view college as a possibility for them.

In practical terms, we are talking about: not taking the word of high school guidance counselors concerning those in the senior class who might be likely college prospects; greatly increasing the use of peer recruiters who are already at postsecondary institutions; revising brochures and other promotional media approaches used by the college to include more sensitivity to these groups; and early and complete consumer access to financial aid information. As increasing numbers of nontraditional students seek college careers, the task of recruiting them will fall more and more on the regular staff of the admissions office, and not on those special personnel to whom this task has often been assigned. There is much that these recruiters must learn from special staff members about the techniques for recruiting the disadvantaged student and the indicators which the recruiter must identify in judging the

potential of prospective candidates.

Admissions

At institutions characterized by low selectivity in the admissions of students who possess at least some minimum credentials (such as a high school diploma), the admissions process for disadvantaged students is one of diagnosis and prescription, topics which will be addressed subsequently. For those institutions characterized by a higher degree of selectivity, we must consider that the use of the two traditional predictors of college success (or at least determinants of college entrance)--high school scholarship and pre-admissions test scores--leads to the exclusion of disadvantaged students.

As the predictive success of these measures when applied to the minority or disadvantaged student is highly questionable, the following conclusions are warranted: (1) test scores should be one of a number of indices used to predict academic success, particularly in instances where these tests are used to exclude students from college, and (2) better indicators are urgently needed. Both biographical data and nonintellective factors hold great promise as predictors of college success.

Biographical data as indirect indicators of college potential are now in use creatively at a number of institutions. For students past the traditional college-going age, successful experience in assuming family responsibilities and involvement in community improvement activities of many sorts are evidence of maturity and self-discipline--qualities which bear directly on college skills. For other students, demonstrated leadership abilities in social, athletic or other situations can show the existence of a drive to succeed which, properly directed, is as important as cognitive strengths in pursuing the degree.

Measures in the affective area may prove to be equally valuable, but here much yet needs to be done. Cognitive style theorists have postulated

that cognitive mapping of potential college students, especially from non-traditional populations, will be increasingly valuable in strengthening such students' chances by refining the match between student, institutional type, and prescribed program of developmental support. The concept of locus-of-control, as advanced by Roetter and refined by others for special populations, may be applicable once it has been convincingly demonstrated that persons clustering near the "self-control" end of the scale will tend to succeed at a greater rate in the postsecondary environment. This thesis is buttressed by tentative findings that the resolution of the adolescent identity crisis by disadvantaged students in favor of scholastic achievement is valuable, self-affirming, and measurably increases the chances for success.

Because instruments exist for objective measurement of each of these dimensions, concrete application may be close at hand. However, as for any indicator, sensitivity to individual experiences and some common sense must come into play in interpreting results. Here, the experience of special personnel in set group programs is of great value. In all cases, the criteria for the admission of disadvantaged students should include indirect indicators of potential to complete a college education successfully.

Diagnosis and Prescription

Any program for disadvantaged college students must be founded on the maxim that the vast majority of psychologically whole, reasonably motivated persons can master the undergraduate curriculum, given appropriate assistance and time. Therefore, once the student has been admitted, the end purpose of the diagnostic or prescriptive process must be, not to screen out prospective students, but to match the available resources of the campus to the strengths and weaknesses of the student. A faith that the student will succeed should permeate this and every part of the developmental education process which the student will require.

Because the resources necessary to allow the student to fulfill his or her potential and succeed in college are so expensive (because they are by nature labor-intensive) we cannot afford to have them scattered or misspent. In other words, the "block programming" of students is no longer feasible, if in fact, it ever were so. Diagnostic testing is the essential tool we need to create the best kind of individual-centered education. In practical terms, every nontraditional disadvantaged student, upon admission, should be scheduled into his or her higher educational experiences only after realistic and student-centered diagnostic-prescriptive testing.

Academic practices must be structured around what the tests reveal is necessary. This is, of course, the opposite of many current practices which try to fit students to what already exists. In the cognitive area, it is heartening to know that tests which can pinpoint specific areas of weakness--for example, trouble with subject-verb agreement--are both available and infinitely more useful. Whenever possible, such tests should be constructed or chosen by the faculty who will have to teach according to the need indicated by such tests.

In the area of measurement of effect along with diagnosis and prescription, there is still a long way to go. There is much promise in such increasingly popular techniques as group interviews, peer ratings, and long observation periods such as living/learning pre-freshman summer programs.

Diagnostic and prescriptive testing should be done well or not at all. Tests should not be administered unless a strategy for applying the findings in a positive way is developed in advance and cleared with all parties. The validity of any test to be used should have been proven, to the satisfaction of all parties, to be valid for this particular group. Tests should relate not to entrance, but to success in that particular environment. Pernicious results can come from tests which tend to separate on the basis of ethnicity or economic status.

Orientation

Orientation to campus environment is especially important when the target group consists of nontraditional or disadvantaged students. Few settings are as ideal as residential programs the summer before the freshman year for accomplishing the many things which proper orientation can provide. This is a highly recommended strategy, as it allows for the targeting of resources to a specific group over a specific time period, and the eliminating of distracting elements. Six to eight weeks seems to be an ideal period for this purpose. A shorter period of time does not allow for the reinforcement of academic skill building, and a longer period is often administratively inconvenient or economically unworkable.

However, more traditional forms of orientation, including the week prior to fall registration, summer commuting programs, etc., can also be made to function well for disadvantaged students. Certain components should be shared by all. Students' time should be highly structured. Schedules which alternate various modes of instruction with self-study should be carefully planned in advance. There should always be the exception that the student will perform independent work, both in class, and, preferably, outside, in a supervised environment during evenings. Staff should include persons who can become role models for the students--including peer tutors and peer counselors as well as adults as teachers and administrators. There should be structured academic experiences, including basic skills work--especially in reading, writing and mathematics--and, where indicated, coursework for credit. The most typical example of the latter is the first semester of the required English course, taught at a slower pace or for more hours than a student might encounter in the academic year, but with the same academic expectations for ultimate grades and credit award. (Methods are at least as important as pace).

There should be an orientation to the organization and bureaucracy of the academic and educational environment. In the better programs, when students are advised about the complicated procedures involved in student financial aid, explanations should be given regarding the philosophy of packaging, of "need," of parental contribution and of campus emergency procedures.

There should be seminars or discussions about other kinds of coping skills that students might need, such as the organization of time, priorities, and resources. At the same time, students can be assisted in exploring the realities of life after college.

Special Coursework

There are certain skills which many disadvantaged students lack when they enter college. A few students can and occasionally do survive post-secondary education without them. However, underpreparation in the basic academic skills remains one of the most persuasive causes of failure for this group, either directly, through their inability to cope with academic coursework, or indirectly through the expenditure of such disproportionate amounts of the student's time and energy to simply keep pace that he/she is left psychologically unable to cope with the other demands of the new environment.

These skills may be characterized as both conceptual and mechanical. The conceptual areas include a deductive approach to problem-solving. Students frequently possess this valuable tool but are hampered by lack of vocabulary or stylistic sophistication. In many cases, the deductive or linear approach must be taught along with basic skills teaching, either formally, as has been successfully tried through logic and the scientific method, or indirectly.

The mechanical skills are most often identified as study skills, verbal abilities and mathematics. Study skills always include note-taking and library usage, and usually address budgeting of time, test-taking, research

skills, class participation and similar areas. Verbal abilities include reading comprehension and speed (the most commonly expressed goal is the achievement of grade level 10 or above in these areas), writing (from simple agreement problems through paragraphing to brief essays), and, less often, public expression. Mathematics skills classes range from basic arithmetic operations through algebra to pre-calculus. Many disadvantaged students display extreme anxiety, both about mathematics and their own writing, and the techniques of successful basic skills courses must include positive and continuing feedback to help students overcome these anxieties.

The disadvantaged student will require two basic types of special course-work: remedial work (work in the basic skills at a precollege level and for which no credit is normally offered); and developmental or supportive course-work work at a college level, but in a setting which expands normal classroom house and may use materials especially adapted to the students' needs. Credit will only be awarded for that portion of the course involving college material which was successfully mastered.

Currently, there is a debate within the academic community about the validity of awarding credit for remedial coursework. The experience of many observers has been that to award credit for such work is not in the long-term best interest of disdavantaged students. The consensus is that it leads to inadequate understanding on the part of students about what in fact society perceives is college level work; that it taints whatever academic credential the student ultimately may receive; and that it influences the thinking of the faculty about these students and themselves in a destructive way.

It is important that there be available to the student sequentially structured courses in skill-building, leading to his or her entry by the end of the freshman year into work which is primarily down from the regular college catalogue offerings. Thus, the cooperation of academic administrators is considered to be very much a part of program planning for such students.

The availability of these courses alone is insufficient. Academic advisement, that notoriously weak part of the campus environment, must be sufficiently sensitive to channel disadvantaged students into the areas in which they demonstrate a need for greater reinforcement. This process should take into account the results of the diagnostic and prescriptive testing referred to previously, as well as sophistication about individual styles of both student and instructor at the campus, and a normal knowledge of distributional requirements, special circumstances involving a discipline, student career planning, and the like.

Student Financial Aid

It is a truism that,to increase the number of minority students in colleges, one has to recruit largely from disadvantaged groups; thus, most of the new minority students are poor and require substantial amounts of student financial aid.

It is also true that federal and various state entitlement programs are insufficient for closing the gap between what is needed and the available grant aid in most states. However, the application of good financial aid practices, applied in a timely and forthright fashion, can do much to alleviate the anxiety of the disadvantaged student.

This would normally include the following: a student expense budget which is realistic--that is, which recognizes all the needs of the student in the coming year and not just those bills which he/she will be required to pay to the institution. Simultaneously, the budget should not be overinflated in order to provide the student with monies beyond the most pressing needs. A student should receive an early award letter which disclosing needs, available resources and from what specific source they are drawn, and which items are discretionary and which are not. "Packaging" should take place before the student arrives on campus for orientation. When self-help or parental contribution is

calculated in the package, a careful explanation should be provided of when and how such contribution is expected and what options there might be for the parents in order to avoid distress for the student. Good financial aid counseling, preferably from more than one source, must be available at the outset.

The following considerations must be kept in mind when developing financial aid policy for the disadvantaged:

- Standard expectations of savings and summer earnings cannot be anticipated. The money that might go to defray college expenses must often be used instead for the survival of the student's family.
- A student's attending college means that income for his/her family is foregone and, thus, the simple presence of a student on campus represents a tangible sacrifice in terms of the family's financial well-being.
- The disadvantaged student is particularly ill-equipped to handle financial emergencies. A network of informal sources which can be tapped or short-term loans simply does not exist and should not be anticipated.
- Although loans may be inevitable, they must be provided only after considerable counseling to insure that the student is fully aware of the nature of these obligations. The concepts of "debt" and "loans" are particularly threatening for students from families which can ill afford to assume debts for which prospects for repayment are slim. Thus, loans should not be granted in the earliest stages of the student's college career, when his anxieties are greatest and his chances for success less strong. At no time should a loan be a burden so onerous that it serves as an impediment to further study, including graduate education. Cumulative indebtedness for the disadvantaged undergraduate student should never exceed $4,500.
- Work during term time can be a valuable part of the student's college experience, but work/study should be prescribed with great attention to the student's academic profile, and only in instances when the time spent working does not jeoparadize the student's academic responsibilities.

Tutoring

Few successful programs in this area do not make heavy use of tutoring to extend the academic reach of the institution. The availability and often the prescription of tutors provides an alternate mode of delivery for those students who are more comfortable with a one-to-one relationship. Tutoring

helps to reinforce material which needs to be repeated in different ways, provides an important corollary source of financial aid for upper class students from the same disadvantaged population, provides an additional reinforcing mechanism for the tutor as well as the tutee, provides an informal source of counseling about the institution, and provides students with an additional possible source of role models.

Selection of the tutor for the disadvantaged student should be by someone who can assess the individual needs of that student and make a determination on that basis. Referrals by department chairpersons very often do not fit this mode. The same person who makes the selection must also have the responsibility for an accountability mechanism to make sure that the tutor and tutee understand their mutual responsibilities and live up to them. More and more, a signed contractual agreement between tutor and tutee is enjoying success in programs for educationally disadvantaged students.

Counseling

Students from disadvantaged backgrounds and their families are especially prone to personal difficulties which are often related to fiscal crises. In addition, problems of adjustment to the new environment and to a new self-image as serious students are heightened for non-traditional college students. Successful programs strive to reduce the impact of these types of problems on students' academic performances by providing a broad range of counseling services.

These services, in general, are provided in their greatest intensity in the first two semesters. Normally a caseload and individual session approach is effective, although small group discussion for achievement motivation and values clarification enjoys some success. Whether through specially identified program personnel or general campus sources, care should be taken that the following types of counseling are readily available to

target students: academic /educational, sometimes including the "advisement" function; personal/social; vocational/placement; financial, including aid application and personal budgeting advice; and psychological, often handled through referral to specialized professionals. Career counseling is also critically important.

OTHER CRITICAL ELEMENTS

Administration

At certain institutions, notably those with long histories of serving persons from minority groups, and certain urban community colleges as well, these basic elements will be part and parcel of the institutional mission and vision. If not, they should be. At many other institutions, however, more time must pass before these approaches will be embodied in the administrative and academic style of the larger institution. During this interim period, it is often important that there be an administrative center for these various activities. Sometimes this takes the form of the director of various state or federally funded programs; at other times, a person identified within the student activities of academic affairs areas who clearly can act as a catalytic agent and coordinator of special programs and services for disadvantaged students.

There is sometimes a concern at campuses where disadvantaged or non-traditional students are in the minority that, to centralize services to them under single direction, creates a kind of "ghetto" from which most minority concerns and activities seen to enanate. This may be so, but it is not unhealthy. Many persons will attest to the need for at least one area which they can identify as being most responsive to their needs. In any case, minority students, like all other students, have many diffused concerns and will not concentrate their energies solely in one spot. It is also true that this concentratio

might raise a political question for campus administrators. The raising of such questions is seldom bad; in fact, such a process is sometimes desirable. Finally, the creation of such a central organizational pattern indicates a commitment on the part of the campus chief administrative officer to directly attack the problems facing disadvantaged students. It also provides administrative training and leadership roles for persons from minority communities. The evolution of postsecondary institutions, in the best of circumstances, will bring about a day when all of these services are so much taken for granted and so much a part of normal institutional life that special apparatuses will no longer be necessary.

Staffing

Consonant with the organizational pattern discussed above is a staffing model which allocates program functions to specialized personnel who clearly work in and for these areas. Therefore, in all but the smallest programs (fewer than 20), a full-time administrator should be identified. Counselors should be available at a 50:1 ratio, at least for freshmen.

The extent to which the program administrator reports will be read by the community will be an indicator of the relative importance of the program. Normally, reporting should be to the chief executive or chief academic officer. The administrator should be a cabinet level officer. Program budget and staffing responsibilities and authority should remain with the involved administrator. At all levels--professional and support--program personnel must have a combination of sensitivity to the needs and styles of minority and other disadvantaged students, and superlative skills in their formal roles as administrators, counselors, instructors, tutors or support staff. The program inevitably will have to prove itself repeatedly to various groups. Those entrusted with hiring and/or training staff must take care to screen out both those with the requisite skills but who lack sensitivity, and those with the requisite sensitivity but who are unskilled.

The former are destructive to the program because the students will not like them and therefore not learn. The latter are even more destructive to the program because the students will not learn and the faculty--the "establishment"--will not respect them.

Facilities

While specific spatial arrangements necessarily will vary from campus to campus, the same basic considerations should prevail throughout. First, there is symbolic value to the nature of the office area, location and furnishings. Second-hand furniture, hand-me-down equipment and inconveniently located or cramped quarters can reinforce students' perceptions of their second-class status. Second, those involved in counseling must have acoustically discrete locales for their work and secure systems for storage of sensitive records. Third, space should be provided for structured tutoring sessions and small group meetings of various kinds. If basic skills are to be taught via one or another of the various learning center arrangements, then of course the mode(s) of instruction will dictate additional space and equipment needs. Lastly, all program-controlled activities should occur in contiguous spaces, whenever possible, to maximize program identity, administrative coordination, and information exchange.

Evaluation

The previous comments have established a base for short-term program evaluation. Although the widely varying nature of different educational establishments makes cross-institutional comparison difficult, key measures of programmatic efficacy include the baselines of credit accumulation toward the degree within five years, attrition at a rate comparable to that of the entire student body at that particular campus, and a grade distribution not unlike that of the entire graduating class. Also, very important and sometimes overlooked is the distribution of minority or disadvantaged students

in various disciplines. Too often these students end up graduating in the liberal arts and the "soft sciences" in disproportionate numbers, while being underrepresented in the hard sciences and preprofessional areas. Educational equity would require a distribution which ensured that those major fields conducive to "upward mobility" contained their fair share of students from deprived backgrounds.

Cost-benefit analysis is applicable to these program efforts, if the magnitude of the exercise is limited to the production of degree-holding graduates and a medium-term end. The larger benefits of enhancing educational equity, which might include breaking the vicious and interrelated cycles of welfare dependency, unemployment, and unequal societal status, are beyond the scope of this paper. What follows is a formula which enables the user to compute the cost per graduate for students who receive and do not receive services of the type described. It also allows for easy inter-campus and inter-system comparison. It has proven especially valuable in terms of decision-making regarding investment of public monies for increasing minority access to higher education opportunities.

The following formula provides one mechanism for calculating the efficiency of any postsecondary program which has as its goal advancement of the graduation chances of a group of college students:

$$E = \frac{(C_1 \ldots\ldots C_x) x\ R}{G}$$

Where E is the expense of "producing" one college graduate;

C_1 through C_x represents the diminishing numbers in an entering cohort over a set period of years;

R represents the resources devoted to one program student; and

G represents the number of graduates from cohort C after x years.

Cost

What follows is a model for roughly arriving at the "added" value of R--that is, the cost beyond the contribution to financial aid which might normally be expected from public sources, the student and family, and unfunded institutional student aid. Also not included are overhead costs, including space and indirect expenses. Prevailing rates for high-cost areas are used.

A TWELVE-MONTH BUDGET FOR A FIFTY-STUDENT PROGRAM
(residential campus)

1 Administrator	$25,000
Salary of dean or equivalent (fringes included in all salaries)	
1 Administrative Assistant	9,000
1 Stenographer	8,000
1 Counselor	18,000
1 Language Arts Specialist	18,000
Subtotal Salaries $78,000	
Tutoring Services @ $150	7,500
Supplies, including test materials	600
Travel, including recruiting activities	1,000
Subtotal other $9,100	
Room and Board, 20 freshmen 6 summer weeks @ $300	6,000
Summer instructors @ $1,000	3,000
Tutor counselors @ 1:10 @ $600	1,200
Incidentals, including recreation and stipends @ $100	2,000
Subtotal summer program $12,200	
Supplemental tuition-academic year (varies depending on nature of institution) @ $1,000	$20,000

Books and supplies @ $100

Subtotal financial aid $75,000

Grant Total $174,300

Cost-per-student (Value of R): $3,486

The model assumes a "gap" between sources of aid and cost of the student; costs drop dramatically, to $2,000/student, if complete financial aid is available from existing sources.

Expectations

For maximum effectiveness, all participants in this process must understand and share roughly the same expectations for what these activities should accomplish. First, although enabling access to higher education for hitherto excluded groups is a worthy goal, it is not a sufficient one. Students must be provided the tools to succeed through to graduation (at a high level of cognitive achievement) at rates similar to those of their contemporaries and within a reasonable time period, both for reasons of economic limits on resources and to avoid the appearance of lessening the quality of the academic experience. However, this is not to say that in the early semester a reasonable rate of credit accumulation expectation be required concomitant with students' developing skills. Certainly, however, by the junior year students should be expected to meet exactly the same academic standards as all others, in terms of grade and credit accumulation. Five years to complete a four-year degree is not an unreasonable standard for these students. Third, in terms of grading, discipline and the like, it is again not unreasonable to devise a system which takes the background and circumstances of disadvantaged students into account during their earliest semesters in college. However, by the end of the freshman year these students should be phasing into the main life of the campus; by the middle of their college careers they should be indistinguishable regarding their relation to all facets of the academic experience.

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